

U.S. Patent Application of SQUIRRELL et al
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which is able to express said polypeptide product and which is able to express said undesired protein only in a mutant form which form has the said activity of the corresponding native protein under culture conditions but loses said activity under conditions of pH or temperature at which the said polypeptide product remains unaffected; and recovering the desired product, wherein either the host cell culture or the recovered product is subjected for a sufficient period of time to conditions of pH or temperature under which the undesired protein is denatured but the polypeptide product remains unaffected.

2. (Amended) A method according to claim 1 wherein the host cells are cultured for a period which is sufficient to allow production of polypeptide product, and then a batch of said culture is subjected to the said conditions of pH or temperature under which the undesired protein is denatured, and the polypeptide product is recovered.

3. (Three Times Amended) A method according to claim 1 or claim 2 wherein the conditions at which the undesired protein is denatured and the polypeptide product remains unaffected are temperature conditions.

6. (Three Times Amended) A method according to claim 1 or claim 2 wherein the conditions at which the undesired protein is denatured and the polypeptide product remains unaffected are pH conditions.

10. (Twice Amended) A recombinant cell which comprises a first nucleotide sequence which encodes a desired polypeptide under the control of regulatory elements which allow expression of said polypeptide, and wherein a gene which encodes a protein which is undesirable as a contaminant in preparations of said polypeptide product but wherein the undesired protein has activity that is essential for survival of a host cell or for a viable production process using the host cell and has activity which impedes or hinders the use of the polypeptide product, is mutated such that the protein expressed is denatured under pH or temperature conditions in which the polypeptide product remains unaffected.